

# Certificate

This is to certify that the thesis entitled "**Study of rational Fourier series**" being submitted for the award of Ph.D. Degree in Mathematics by **Hardeepbhai J. Khachar** (Reg. No: FOS/2263, Date: 09-02-2021), incorporates the original research work carried out by him under my guidance and no part of this work has been previously submitted by him to any other University or Institution for the same or any other degree.

He has put into research for the requisite number of terms as required by the University.



**Dr. R. G. Vyas**

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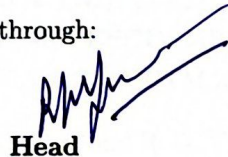
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February 2021

# Certificate

This is to inform that the following publications have resulted from the research work of my Ph.D. student, Mr. Hardeepbhai J. Khachar, who wishes to submit his thesis titled “**Study of rational Fourier series**” to the Department of Mathematics, Faculty of Science, The Maharaja Sayajirao University of Baroda, Vadodara for the award of the degree of Doctor of Philosophy in Mathematics.

1. H. J. Khachar and R. G. Vyas. A note on multiple rational Fourier series, **Periodica Mathematica Hungarica**, (2022), 85(2), 264–274, ISSN: 0031-5303. (Indexed in Scopus and SCIE). MR4514182  
DOI: 10.1007/s10998-021-00433-7
2. H. J. Khachar and R. G. Vyas. Rate of convergence for rational and conjugate rational Fourier series of functions of generalized bounded variation, **Acta et Commentationes Universitatis Tartuensis de Mathematica (ACUTM)**, (2022), 26(2), 233–241, ISSN: 1406-2283. (Indexed in Scopus and ESCI). MR4527802  
DOI: 10.12697/ACUTM.2022.26.16
3. H. J. Khachar and R. G. Vyas. Properties of rational Fourier series and generalized Wiener class, **Georgian Mathematical Journal**, (2023), 30(2), 247–253, ISSN: 1072-947X. (Indexed in Scopus and SCIE). MR4565959  
DOI: 10.1515/gmj-2022-2206
4. H. J. Khachar and R. G. Vyas. Order of multiple rational Fourier coefficients for functions of generalized Wiener class, **Publicationes Mathematicae Debrecen**, (2023), 103(3–4), 473–487, ISSN: 0033-3883. (Indexed in Scopus and SCIE). MR4672947  
DOI: 10.5486/PMD.2023.9550

5. H. J. Khachar and R. G. Vyas. Convergence and integrability of rational and double rational trigonometric series with coefficients of bounded variation of higher order, **Georgian Mathematical Journal**, (2023), 30(5), 739–744. ISSN: 1072-947X. (Indexed in Scopus and SCIE). MR4649200  
DOI: 10.1515/gmj-2023-2041
6. H. J. Khachar and R. G. Vyas. Rate of Convergence for Double Rational Fourier Series, **Complex Analysis and Operator Theory**, (2024), 18, article number 99, 17 p. ISSN: 1661-8254. (Indexed in Scopus and SCIE). MR4747516  
DOI: 10.1007/s11785-023-01479-w



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